AVNER AVERMAN
Ramat Gan, Israel
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• **Citizenship US/Israel**

Education:

• **State University of New York University at Buffalo,** NY, USA
Physics B.S.• Minor in Math • GPA 3.5/4.0 •Dean's List Fall 2007

• **Jul 2015 - Apr 2016: The Open Lab**
Intensive software development education. The Open Lab covers a full range of SW development tools, technologies and techniques. From embedded targets, C system programming and C++ middleware.

Work Experience:

Embedded Solutions, Ramat Gan, Israel:

March 2018 - Present: C/C++ Developer:

Worked in small teams of 3-4 developers in conjunction with teams from Rafael and IAI. Worked on 2 devices integrated into the UAV. In Data Processing Module, I worked on: proprietary protocols, Raw Sockets, communication between ground station and the UAV, 1553MIL protocol, scheduler, interrupt handling, state machine, IP, bridging, Netlink in kernel, and other features. The code is written in C in Linux in time critical multithreaded environment.

I also developed an embedded device: runs on VxWorks RTOS, multithreaded and written in C++.

ECI, Omer, Israel:

May 2016 - Feb 2018: Software Developer:

Development and maintenance of complex, large scale network management system. I worked on both event driven client (Java/Swing) and server (C++) in a multithreaded environment with SQL DB. Development in the environment of UNIX based Solaris.

United States Army Research Laboratory, Buffalo, NY, USA:

Position: Research Assistant:

Jun 2011 - Feb 2013: Particle Image Velocimetry with threshold (Aerodynamics).
PIV is an established technique that allows for instantaneous velocity field measurements through the analysis of particle motions captured in images. I wrote a MATLAB algorithm of convolution of two images and applied a threshold to the PIV. Introduction of threshold to the PIV improves the efficiency of the technique by up to 12%. I presented the research in the 2012 McNair conference.

Aug 2009 - Jun 2011: Battle model research.
Sponsored by the Department of the Army, I worked with a MATLAB algorithm to simulate a modern urban battlefield. I rewrote the algorithm to incorporate a new function in to the system. Then I tested the program for critical values. Using this information, I constructed a guidance table which dictates the optimal values for such a situation. I presented my research in 2010 McNair conference.

Aug 2013 – Jul 2015: Blich HS, Ramat Gan, Israel, Physics Teacher

Coursework and Research, SUNY at Buffalo, Buffalo, NY, USA:

Feb 2009-May 2011: Advanced Physics lab
I conducted experiments in teams of three to five people in the fields of: Electron diffraction in a crystal, radiation, x-ray diffraction, black body radiation, the photoelectric effect and spectroscopy. As well, I carried out longer experiments in the fields of the hall-effect in semiconductors, Zieman-level splitting and STM (scanning tunneling microscope). I presented my research of STM to the UB physics department.

Feb 2010 – May 2011: Synthesis of nanords
Conducted research dealing with nano-particles and nano-rods. Created the particles, using chemical synthesis, then conducted tests to determine magnetic domains and properties.

Programming:	C and C++, data structures, multi-threaded environments and design patterns. Familiarity with: Java, MATLAB and Python (would need time to brush up).
Affiliations:	Ronald E. McNair Honorary Society; EOP; CSTEP
Certificates and Honors:	Sep 2007 **–** Tutor certificate; July 2007 McNair Summer Internship July 2008 - McNair Summer Internship 2008
Languages:	English-fluent; Russian – fluent; Hebrew – fluent;
Hobbies:	Chess; Snowboard; Sanshou; Soccer.